



Product Change Notification - LIAL-14UBGG341

Date:

27 Feb 2020

Product Category:

32-bit Microcontrollers

Affected CPNs:**Notification subject:**

CCB 4068 Final Notice: Qualification of MTAI as an additional final test site for selected ATSAMD20G1xx Atmel device families available in 48L TQFP (7x7x1mm) package.

Notification text:**PCN Status:**

Final notification.

PCN Type:

Manufacturing Change

Microchip Parts Affected:

Please open one of the icons found in the Affected CPNs section above.

NOTE: For your convenience Microchip includes identical files in two formats (.pdf and .xls).

Description of Change:

Qualification of MTAI as an additional final test site for selected ATSAMD20G1xx Atmel device families available in 48L TQFP (7x7x1mm) package.

Pre Change:

Tested at ASE9 or MPHL final test site

Post Change:

Tested at ASE9, MPHL or MTAI final test site

Pre and Post Change Summary:

		Pre Change		Post Change		
Final Test Site		ASE Test (ASE9)	Microchip Technology Operations (Philippines) Corporation MPHL	ASE Test (ASE9)	Microchip Technology Operations (Philippines) Corporation MPHL	Microchip Technology Thailand (HQ) (MTAI)
Base Quantity Multiplier	Tape and reel	2500 units per reel	2500 units per reel	2500 units per reel	2500 units per reel	2500 units per reel
	Tray	250 units per	As received	250 units per	As received	250 units per tray



e (BQM)		tray	from assembly	tray	from assembly	
Pin 1 Orientation for reel		Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1	Quadrant 1
Carrier Tape Dimension (reel)	Minor dimensional changes (see pre and post change comparison)					
Cover Tape Dimension for (reel)	See pre and post change comparison					
Reel	Minor dimensional and color changes (see attached)					
Tray	See pre and post change comparison					
Packing Method	Minor dimensional changes (see pre and post change comparison)					

Impacts to Data Sheet:

None

Change Impact:

None

Reason for Change:

To improve on-time delivery performance by qualifying MTAI as an additional final test site.

Change Implementation Status:

In Progress

Estimated First Ship Date

March 27, 2020 (date code: 2013)

NOTE: Please be advised that after the estimated first ship date customers may receive pre and post change parts.

Time Table Summary:

	February 2020					March 2020				
Workweek	05	06	07	08	09	10	11	12	13	14
Qual Report Availability					X					
Final PCN Issue Date					X					
Estimated Implementation Date									X	

Method to Identify Change:

Traceability code

Qualification Report:

Please open the attachments included with this PCN labeled as PCN_#_Qual_Report

**Revision History:**

February 27, 2020: Issued final notification. Attached the qualification report. Provided estimated first ship date to be on March 27, 2020.

The change described in this PCN does not alter Microchip's current regulatory compliance regarding the material content of the applicable products.

Attachment(s):

[PCN_LIAL-14UBGG341_Qual_Report.pdf](#)

[PCN_LIAL-14UBGG341_Packing_information_pre_and_post_change.pdf](#)

Please contact your local [Microchip sales office](#) with questions or concerns regarding this notification.

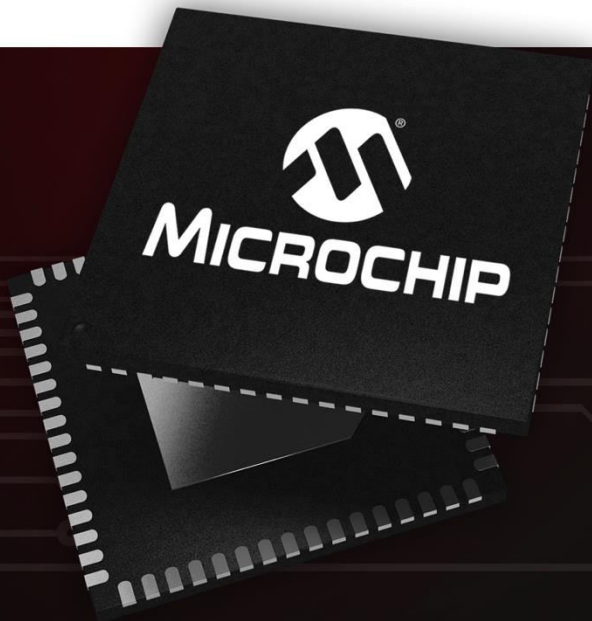
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Affected Catalog Part Numbers (CPN)

ATSAMD20G14A-AUA4
ATSAMD20G15A-AUA4
ATSAMD20G17A-AUA4
ATSAMD20G18A-AUA4
ATSAMD20G14A-AU
ATSAMD20G15A-AU
ATSAMD20G16A-AU
ATSAMD20G17A-AU
ATSAMD20G18A-AU
ATSAMD20G16A-AUA4
ATSAMD20G18A-AUA2
ATSAMD20G16A-AUA2
ATSAMD20G17A-AUA2
ATSAMD20G15A-AUA2
ATSAMD20G14A-AUA2
ATSAMD20G14A-AN
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ATSAMD20G14A-AUT
ATSAMD20G15A-AUT
ATSAMD20G16A-AUT
ATSAMD20G17A-AUT
ATSAMD20G18A-AUT
ATSAMD20G16A-AUTA2
ATSAMD20G18A-AUTA2
ATSAMD20G17A-AUTA2
ATSAMD20G15A-AUTA2
ATSAMD20G14A-AUTA2



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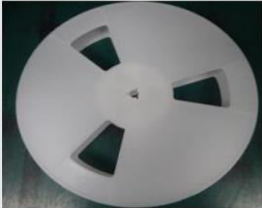






CCB 4068_ Packing Information Pre and Post Change Summary
PCN# LIAL-14UBGG341


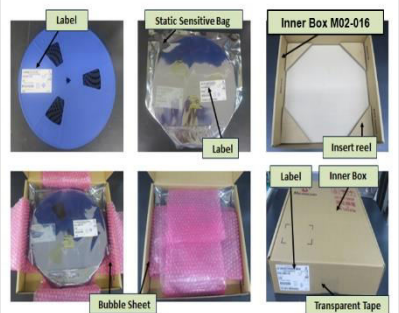
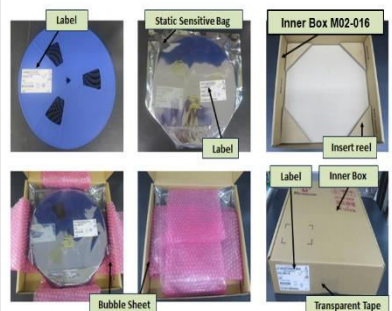


Packing information -Tape and reel

	Pre-Change												Post Change					
Final Test Location	ASE9						MPHIL						MTAI					
Packing Media	Tape and Reel						Tape and Reel						Tape and Reel					
Base Quantity Multiple (BQM)	2500 units per reel						2500 units per reel						2500 units per reel					
Pin 1 Orientation	Quadrant 1						Quadrant 1						Quadrant 1					
Cove tape	Dimension:13.3mm, Heat Seal Adhesive						Dimension:13.3mm , Pressure Seal Adhesive						Dimension:13.3mm, Heat Seal Adhesive					
Carrier Tape	W	P1:	A0	B0	K0	K1:	W	P1:	A0	B0	K0	K1:	W	P1:	A0	B0	K0	K1:
	16 mm	12 mm	9.30 mm	9.30 mm	1.8 mm	1.2 mm	16 mm	12 mm	9.30 mm	9.30 mm	1.8 mm	1.2 mm	16 mm	12 mm	9.60 mm	9.60 mm	1.85 mm	1.25 mm

Packing information -Tape and reel

	Pre-Change										Post Change				
Final test location	ASE9					MPHL					MTAI				
	Color	Diameter	Hub:	W1	W2	Color	Diameter	Hub:	W1	W2	Color	Diameter	Hub:	W1	W2
	WHITE	330	4 inch (100mm)	16.80 mm (+0.3/-0.2)	22.20 Max	WHITE	330	4 inch (100mm)	17.5 +/- 0.5	21.5 +/- 1.0	Dark Blue	330	4 inch (100mm)	16.40 mm (+2.00/-0.00)	22.20 Max
Reel															
Antistatic shielding bag															
	430 x 495 mm					406 x 457 mm					370 x 420 mm				

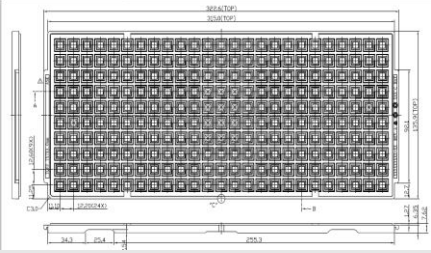
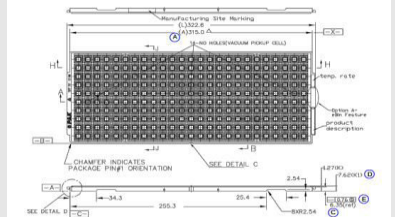



Packing information -Tape and reel

	Pre-Change		Post Change
Final test location	ASE9		MTAI
Packing Method	 Inner box 37x35.3x7.7 cm		 Inner Box Reel 37x35.3x7.7 cm
Outer Carton Box)	 36.5x38.4x10.4 cm (1 inner box per 1 outer box) 38.5x39.0x36.0 cm (4 inner box per 1 outer box) 38.5x66.0x40.5 cm (8 inner box per 1 outer box)		 37.0x38.0x11.0 cm (1 inner box per 1 outer box) 37.0x38.0x22.5 cm (2 inner box per 1 outer box) 37.0x39.0x39.0 cm (4 inner box per 1 outer box) 42.0x66.0x39.0 cm (8 inner box per 1 outer box)
	 37.0x38.0x11.0 cm (1 inner box per 1 outer box) 37.0x38.0x22.5 cm (2 inner box per 1 outer box) 37.0x39.0x39.0 cm (4 inner box per 1 outer box) 28.6x37.5x36.2 cm (4 inner box per 1 outer box) 42.0x66.0x39.0 cm (8 inner box per 1 outer box)		


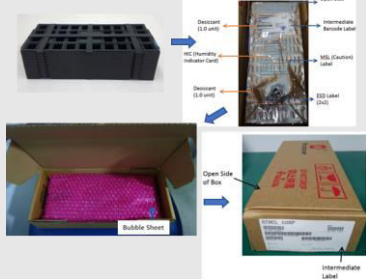




Packing information -Tray

	Pre-Change		Post Change
Final Test Location	ASE9	MPHL	MTAI
Packing Media	Tray	Tray	Tray
Base Quantity Multiple (BQM)	250 units per tray	As received from assembly	250 units per tray

Packing information -Tray

	Pre-Change								Post Change			
Final test location	ASE9				MPHL				MTAI			
	Row	Column	Pocket on tray	Tray stack	Row	Column	Pocket on tray	Tray stack	Row	Column	Pocket on tray	Tray stack
	10	25	250 (Unit per Tray)	10 + 1 (10 + Cover)	10	25	As received from assembly	10 + 1 (10 + Cover)	10	25	250 (Unit per Tray)	10 + 1 (10 + Cover)
Tray					As received from assembly							
Antistatic Shielding Bag												
	510x280mm				228 x 483 mm				280x560mm			

Packing information -Tray

	Pre-Change		Post Change
Final test location	ASE9	MPHL	MTAI
Packing Method	 <p>Inner Box Tray 16.2x37.1x8.8 cm</p>	 <p>Inner Box Tray 16.2x37.1x8.8 cm</p>	 <p>Inner Box Tray 16.2x37.1x8.8 cm</p>
Outer Box	 <p>36.5x38.4x10.4 cm (2 inner box per 1 outer box) 36.5x38.4x22.0 cm (4 inner box per 1 outer box)</p>	 <p>37.0x38.0x11.0 cm (1 inner box per 1 outer box) 37.0x38.0x22.5 cm (2 inner box per 1 outer box) 37.0x39.0x39.0 cm (4 inner box per 1 outer box) 42.0x66.0x39.0 cm (8 inner box per 1 outer box)</p>	 <p>37.0x38.0x11.0 cm (2 inner box per 1 outer box) 37.0x38.0x22.5 cm (4 inner box per 1 outer box) 34.5x39.2x19.5 cm (4 inner box per 1 outer box) 37.0x39.0x39.0 cm (8 inner box per 1 outer box)</p>



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QUALIFICATION REPORT SUMMARY

PCN #: LIAL-14UBGG341

Date

February 10, 2020

**Qualification of MTAI as an additional final test site for
selected ATSAMD20G1xx Atmel device families available in
48L TQFP (7x7x1mm) package**

Purpose: Qualification of MTAI as an additional final test site for selected ATSAMD20G1xx
Atmel device families available in 48L TQFP (7x7x1mm) package

CCB No.: 4068

Test / Evaluation	Test Conditions / Parameters	Result
Datalog / Bin Comparison	<ul style="list-style-type: none">Compare test numbers, test names, test sequence bin assignments & pass/fail resultsAccept if all match or justify the differences	Passed
Site by site verification	<ul style="list-style-type: none">Compare test numbers, test names, test sequence bin assignments & pass/fail resultsAccept if all match or justify the differences	Passed
Test stability verification	<ul style="list-style-type: none">50 loop test performed with no datalog delaysAccept on 0 fails	Passed
Parametric test stability verification	<ul style="list-style-type: none">Use Real Time Statistics software to create Cpk report of all parametric testsAccept on Cpk > 1.67 or explainable	Passed
Yield correlation	<ul style="list-style-type: none">Test 1 lot(5k) to monitor test yield -strip test yields should be comparable to the singulated final test yield trends	Passed